

SOV/20-124-3-30/67

The Selective Hydrogenation of the Acetylene Bond in Butine-2-Diol-1,4  
Into the Ethylene Bond on a Nickel Catalyst

significantly inhibited. At a higher pyridine concentration, the reaction stops after the attachment of the first hydrogen mol, hydrogenation does not go beyond the butenediol. In pure pyridine, the selective reaction occurs slowly. It can be accelerated by increased hydrogen pressure. The resulting product was distilled in the vacuum and identified as butenediol. There are 2 figures, 1 table, and 5 references, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR  
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: September 2, 1958

Card 2/2

FRYDLIN, L.Kh.; BALANDIN, A.A.; ZHUKOVA, I.F.

Selective hydrogenation of butynediol to butenediol on a skeletal nickel catalyst. Kin. i kat. 1 no. 3:447-454 (MIRA 13:11)  
S.O '60.

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

(Butynediol) (Butenediol) (Hydrogenation)

S/062/60/000/012/019/020  
B013/B054

AUTHORS: Freydlin, L. Kh., Zhukova, I. E., and Mironov, V. F.

TITLE: Study of the Hydrogenation Rate of Vinyl- and Allyl Compounds of Carbon, Silicon, Germanium, and Tin on a Skeleton Nickel Catalyst

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 12, pp. 2258-2260

TEXT: The authors briefly report on a study of the reactivity of  $\alpha$ - and  $\beta$ -ethylene bonds in the following compounds:  $(\text{CH}_3)_3\text{CCH}=\text{CH}_2$ ,  $(\text{CH}_3)_3\text{SiCH}=\text{CH}_2$ ,  $(\text{CH}_3)_3\text{GeCH}=\text{CH}_2$ ,  $(\text{C}_2\text{H}_5)_3\text{SnCH}=\text{CH}_2$  and  $(\text{CH}_3)_3\text{CCH}_2\text{CH}=\text{CH}_2$ ,  $(\text{CH}_3)_3\text{SiCH}_2\text{CH}=\text{CH}_2$ ,  $(\text{CH}_3)_3\text{GeCH}_2\text{CH}=\text{CH}_2$ ,  $(\text{C}_2\text{H}_5)_3\text{SnCH}_2\text{CH}=\text{CH}_2$ . The skeleton catalyst used was prepared by lixiviating a Ni-Al melt (1:1) with 20% alkali lye. The reaction rate was characterized by the rate of hydrogen absorption as a function of time (Fig.) and the half-life period  $\tau/2$  of the reaction. Reading was performed in intervals of 15 seconds each. The investigation

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Study of the Hydrogenation Rate of Vinyl- and S/062/60/000/012/019/020  
Allyl Compounds of Carbon, Silicon, Germanium, BO13/BO54  
and Tin on a Skeleton Nickel Catalyst

showed that the reaction rate of the compounds studied decreased on the skeleton nickel catalyst in the same order as their reactivity decreased in the radical polymerization: Si > Ge > C > Sn. Just as in radical additions, vinyl compounds of silicon hydrogenate faster than allyl compounds. Vinyl and allyl double bonds in germanium and tin compounds behave in a similar way. Carbon compounds, however, show a contrary dependence. There are 1 figure, 1 table, and 6 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo  
Akademii nauk SSSR (Institute of Organic Chemistry imeni  
N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: May 27, 1960

Card 2/2

FREYDLIN, L.Kh.; ZHUKOVA, I.F.; ZIMINOVA, N.I.; LAYNER, D.I.; KAGAN, N.M.

Deactivation of skeletal nickel catalyst by water vapor and enhancement of its stability by means of promoters. Kin. 1 kat. 2 no.1:112-117 Ja-F '61. (MIRA 14:3)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.  
Institut giprotsvetmetobrabotka.  
(Catalysts, Nickel)

FRYDLIN, L.Kh.; ZHUKOVA, I.F.; MIRONOV, V.F.

Hydrogenation rates of vinyl and allyl compounds of carbon,  
silicon, germanium, and tin on a skeletal nickel catalyst. Inv.  
AN SSSR. Otd. khim. nauk no.12:2258-2260 D '60. (MIRA 13:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Germanium organic compounds) (Silicon organic compounds)  
(Tin organic compounds) (Hydrogenation)

FREYDLIN, L.Kh.; PLATE, A.F.; ZHUKOVA, I.F.; BELIKOVA, N.A.

Order of the addition of hydrogen to double bonds of  
4-vinylcyclohexane-1 on Pt- and Ni-catalysts. Neftekhimia  
4 no.3:382-385 My-Je '64. (MIRA 18:2)

1. Institut' organicheskoy khimii AN SSSR im. N.D.Zelinskogo i  
Moskovskiy gosudarstvennyy universitet.

FREYDLIN, L.Kh.; LITVIN, Ye.F.; ZHUKOVA, I.F.; ENGLIN, B.A.

Sequence of reactions in the process of hydrogenation of piperylene  
on a skeletal nickel catalyst. *Kin.i kat.* 4 no.1:12A-133 Jan-F '63.  
(MIRA 16:3)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.  
(Piperylene) (Hydrogenation) (Nickel catalysts)

FREYDLIN, L.Kh.; ZHUKOVA, I.F.; LITVIN, Ye.F.; ANDERSON, A.A.

Mechanism of the hydrogenation of isoprene and its binary mixtures  
with isocamylene. Neftekhimija '2 no.5:670-675 S-O '62.

(MIRA 16:1)

1. Institut organicheskoy khimii AN SSSR imeni N.D. Zelinskogo.  
(Isoprene) (Butene) (Hydrogenation)

FREYDLIN, L.Kh.; LITVIN, Ye.F.; ZHUKOVA, I.F.; Primal uchastiye  
KRYLOVA, L.M.

Investigation of hydrogenation reactions of piperylene stereoisomers on a skeletal nickel catalyst. Neftekhimiya 1 no.2:213-217  
Mn-Ap '61. (MIRA 15:2)

1. Institut organicheskoy khimii AN SSSR im. N.D. Zelinskogo.  
(Piperylene) (Hydrogenation)  
(Catalysts, Nickel)

SHUKOVA, I.G.

POLUNINA, Ye.F.; CHENTSOVA, M.G.; YAVORSKAYA, Ye.V.; RODIONOV, V.M.,  
akademik, redaktor [deceased]; ZHUKOVA, I.G., redaktor; SACHNVA,  
A.I., tekhnicheskiy redaktor

[Manual on applied studies on organic chemistry for students in  
schools of medicine] Rukovodstvo k prakticheskim zaniatiyam po  
organicheskoj khimii dlia studentov meditsinskikh institutov. Pod  
red. V.M.Rodionova. Moskva, Gos. izd-vo med. lit-ry, 1954. 110 p.  
(MLRA 7:10)

1. Sotrudnik kafedry organicheskoj khimii II Moskovskogo medi-  
tsinskogo instituta imeni I.V.Stalina (for Polunina, Chentsova,  
Yavorskaya)

(Chemistry, Organic)

ZHUKOVA, I. G.

USSR/Biology - Biochemistry

Card 1/1 Pub. 22 - 28/45

Authors : Oparin, A. I., Academician; Gel'man, N. S.; and Zhukova, I. G.

Title : Effect of nutritious medium on the carbohydrate composition of yeast and its fermentation activity

Periodical : Dok. AN SSSR 99/4, 593-596, Dec 1, 1954

Abstract : The effect of the nutritious medium on the carbohydrate composition of *Saccharomyces globosus* 349 and *Saccharomyces paradoxus* 37 yeasts and the fermentation activity of the latter, was investigated. The results obtained are tabulated. Five references: 4-USSR and 1-USA (1949-1954). Table; drawing.

Institution : ...

Submitted : September 24, 1954

OPARIN, A.I.; GEL'MAN, N.S.; ZHUKOVA, I.G.

Condition and activity of invertase and maltase in certain species  
of Saccharomyces. Biokhimiia 20 no.5:571-575 S-0 '55. (MIRA 9:3)

1. Institut biokhimii im. A.N. Bakha Akademii nauk SSSR, Moskva.  
(YEASTS,  
Saccharomyces, intertase & maltase in)  
(CARBOHYDRASES,  
invertase & maltase in Saccharomyces)

ZHUKOVA, I.G.

1949. In 1949, I.G. Zhukova was assigned to the  
operational and the office of General G. G. Zhukov  
in the U.S. Army and the Department of Defense, U.S. Army  
100, 1000-1000, General G. G. Zhukov, U.S. Army, No. 1000.  
It was found that a decrease in the amount of success in the  
operational and the office of General G. G. Zhukov.

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*Личная*  
OPARIN, A.I.; GEL'MAN, N.S.; ZHUKOVA, I.G.

Relation of the incorporation of labeled glycine and the increase in protein nitrogen content to the structural conditions of bacterial protoplasts [with summary in English]. Biokhimiia 22 no.1/2:399-403 Ja-F '57. (MIRA 10:7)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR, Moskva.  
(MICROCOCCUS, metabolism,  
lysodeikticus, eff. of labeled glycine incorporation &  
protein nitrogen on structure of protoplasts (Rus))  
(NITROGEN, metabolism,  
Micrococcus lysodeikticus, eff. of labeled glycine  
incorporation & protein nitrogen on structure of  
proteoplasts (Rus))  
(GLYCINE, metabolism,  
same)

20-2-26/60

AUTHORS: Korobitsyna, I. K. , Zhukova, I. G. , Kuvshinova, V. A. ,  
Gaydamovich, N. N. , Yur'yev, Yu. K.

TITLE: Synthesis and Isomerization of Enol Acetates of  $\beta$ -Furanidons  
(Sintez i izomerizatsiya enolatsetatov  $\beta$ -furanidonov)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp. 327-330  
(USSR)

ABSTRACT: The derivatives of the enolic form of tetrahydrofuranon-3  
( $\beta$ -furanidon) and of its homologues have hardly been investigated at all. The authors of the paper under review, in order to produce the acetylic derivatives of the enolic form, used such ketones of the  $\beta$ -furanidon series in which only one single methylene group stands in the  $\alpha$ -position with respect to the carbonyl group. This made it possible to obtain only one enolic acetate with a position of the double bond that was known in advance. Isopropenylacetate was used as acetylating substance. So far, this type of the interesting  $\beta$ -furanidon derivatives has not been described. The authors of the paper under review examined the behavior

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Synthesis and Isomerization of Enol Acetates of  $\beta$ -Furanidons 20-2-26/60

1. of these enolic acetates with respect to halogenation and isomerization. At chlorine blowing through 2,2,5,5-tetramethylfuranidon-3-enolacetate, or through its solution in chloroform or absolute ether, there is produced at  $-5^{\circ}$  a mono-chlorine-ketone of the furanidine series, i.e. 4-chlorine-2,2,5,5-tetramethylfuranidon-3. This reaction is of fundamental importance, but it has no preparational significance. One of the most interesting reactions is the isomerization of the thermal or catalytic enolacetate-ketons into  $\beta$ -diketones. If triborofluoride is let through cooled enolic acetate at  $-40$  to  $-20^{\circ}$ , no isomerization takes place. At  $-10$  to  $-5^{\circ}$ , on the other hand, after a certain period of induction a turbulent reaction takes place as well as a total resinification of the reaction mixture. If the same enolic acetate is let through a glass tube, which is filled with wadding of glass and heated up to a temperature of  $500^{\circ}$  (but not below) then an isomerization into 4-acetyl-2,2,5,5-tetramethylfuranidon-3 takes place. At higher temperatures the yield decreases from 36.5 % to 5 - 10 %. As a matter of fact, it is split into a ketone and a ketene. The production of a cupric salt and of the derivatives of the 4-acetyl-2,2,5,5-tetramethyl-

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Synthesis and Isomerization of Enol Acetates of  $\beta$ -Furanidons 20-2-26/60

furanidon-3 as well as an intense violet coloring by solution of ferric chloride confirm its structure. The spectrum of absorption of this cupric salt as analogous to the spectrum of absorption of the cupric salt of acetylacetone, which is one of the characteristic  $\beta$ -diketones. The experimental part of the paper under review describes in detail the reactions together with yields, constants and methods. There are 6 references, 2 of which are Soviet.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova)

PRESENTED: January 16, 1957, by B. A. Kazanskiy, Member of the Academy

SUBMITTED: January 12, 1957

AVAILABLE: Library of Congress

Card 3/3

Zhukova, I. S.

KOROBITSYNA, I.K.; ZHUKOVA, I.S.; VORONKOVA, V.V.; YUR'YEV, Yu.K.

Synthesis of 4-oxy-2,2,5,5-tetra-alkyl-3-furanidones by the reduction of 4-isonitroso-2,2,5,5-tetra-alkyl-3-furanidones. Dokl. AN SSSR 117 no.2:237-240 N '57. (MIRA 11:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
Predstavleno akademikom A.N. Nesmeyanovym.  
(Furan compounds)

ZHUKOVA, I. G., Cand Chem Sci -- (diss) "Oxyketones and diketones of  
the furanidin series from 2,2,5,5-tetraalkylfuranidones-3." Mos, 1958.

14 pp (Mos Order of Lenin and Order of Labor Red Banner State Univ  
in M. V. Lomonosov, ~~Chemistry~~ Faculty), 100 copies (K1, 15-58, 112)

OPARIN, A.I., GEL'MAN, N.S., ZHUKOVA, I.G., LUK'YANOVA, M.A.

Interrelation of the enzyme activity of the di- and tricarboxylic acid cycle and the proteplast structure of *Micrococcus lysodeikticus* [with summary in English]. *Biokhimiia* 23 no.6:909-916 N-D '58 (MIRA 11:12)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.  
(OXIDATION, PHYSIOLOGICAL)

ZHUKOVA, I. G.

AUTHORS: Yur'yev, Yu. K., Zhukova, I. G.

79-1-2/63

TITLE: The Catalytic Conversion of Heterocyclic Compounds  
(Kataliticheskiye prevrashcheniya geterotsiklicheskih  
soyedineniy)  
LIII. The Conversion of Oxazole Homologues to Thiazole  
Homologues (LIII. Prevrashcheniya gomologov oksazola v  
gomologi tiazola)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 1, pp. 7-11  
(USSR)

ABSTRACT: The reaction of oxazoles with hydrogen sulfide which  
should lead to the corresponding thiazoles was not in-  
vestigated. But this reaction, including the derivatives,  
is of high interest for the characteristic of the oxazole  
cycle. The formation of thiazoles from oxazoles in this  
conversion might confirm the chemical proximity of the  
structurally similar cyclic systems to their cyclically  
linked oxygen atom. The investigation performed by the  
authors of the catalytic conversion of the methyl homo-  
logues of oxazole under the influence of hydrogen sulfide

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The Catalytic Conversion of Heterocyclic Compounds  
LIII. The Conversion of Oxazole Homologues to Thiazole Homologues

79-1-2/63

showed that the alkyloxazoles, like other five- and six-membered oxygen-containing heterocyclic compounds of an aromatic or aliphatic nature, are subject to a general reaction in which the cyclically bound oxygen is replaced by sulfur. The isomeric dimethyloxazoles (2,4-, 2,5- and 4,5-) and 2,4,5-trimethyloxazole under the influence of hydrogen sulfide upon them in connection with aluminum oxide and at elevated temperatures, like other five- and six-membered oxygen-containing heterocycles, undergo a substitution of the bridge hydrogen by sulfur, where the corresponding dimethylthiazoles (2,5 and 4,5) and 2,4,5-trimethylazole are produced. The catalytic conversion of the oxazole-cycle to the thiazole-cycle takes place in the same manner as the analogous conversion of furfurane to thiophene. But it became evident that the oxazole cycle is much more resistant than furfurane with regard to the action of hydrogen sulfide under these conditions. There are 8 references, 2 of which are Slavic.

ASSOCIATION:  
Card 2/3

Moscow State University (Moskovskiy gosudarstvennyy universitet)

The Catalytic Conversion of Heterocyclic Compounds  
LIII. The Conversion of Oxazole Homologues to Thiazole Homologues 79-1-2/63

SUBMITTED: December 14, 1956

AVAILABLE: Library of Congress

Card 3/3

1. Cyclic compounds 2. Hydrogen sulphide 3. Chemistry

GEL'MAN, N.S.; ZHUKOVA, I.G.; LUKOYANOVA, M.A.; OPARIN, A.I.

Succinic oxidase and malic oxidases in structural elements of  
Micrococcus lysodeikticus. Biokhimiia 24 no.3:481-488  
My-Je '59. (MIRA 12:9)

1. Institute of Biochemistry, Academy of Sciences of the  
U.S.S.R., Moscow.

(MICROCOCCUS, metab.

lysodeikticus, succinic & malic oxidases (Rus))

(SUCCINIC OXIDASE,

in Micrococcus lysodeikticus (Rus))

(OXIDASES,

succinic oxidase in Micrococcus lysodeikticus  
(Rus))

GEL'MAN, N.S.; ZHUKOVA, I.G.; OPARIH, A.I.

Effect of a surface active substance on the enzymatic system oxidizing malic acid in cytoplasmic membranes of *Micrococcus lysodeikticus*. *Biokhimiia* 24 no.6:1074-1078 N-1) '59.

(MIRA 13:5)

1. Institute of Biochemistry, Academy of Sciences of the U.S.S.R., Moscow.

(MICROCOCCLUS metab.)

(MALATES metab.)

(SURFACE ACTIVE AGENTS pharmacol.)

5 (3)

## AUTHORS:

Korobitsyna, I. K., Zhukova, I. G.,  
Yur'yev, Yu. K.

SOV/79-29-7-20/83

## TITLE:

Reactions of the 4-Bromo- and 4-Oxy-2,2,5,5-tetraalkyl Furanidones-3 (Reaktsii 4-brom- i 4-oksi-2,2,5,5-tetraalkil-furanidonov-3)

## PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2190-2196 (USSR)

## ABSTRACT:

The bromine in the 4-bromo-2,2,5,5-tetramethyl furanidone-3 is not substituted by the oxy group (in the hydrolysis with soda solution), by iodine (in the action of KJ), by the thiocyanogen group (in heating with potassium thiocyanate), by the amino group (with ammonia); only in the reaction with sodium cyanide the corresponding nitrile is formed in good yield (Refs 1, 2). The authors used such halides for the synthesis of the condensed systems which contain furanidine- and thiazole rings. In the reaction with crystalline sodium sulphide at 135-140° only the 4-bromo-2,2,5,5-tetraalkyl furanidones-3 easily separated HBr, with the condensation taking place under the formation of the  $\gamma$ -diketone with two furanidine rings (Scheme 1). In the hydrogenation of (I) in the presence of nickel the  $\gamma$ -ketone (IV) resulted [the di-(2,2,5,5-tetramethyl

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Reactions of the 4-Bromo- and 4-Oxy-2,2,5,5-tetraalkyl Furanidones-3 SOV/79-29-7-20/83

furanidone-3-yl-4]], which with aniline led to dianil (V) (Scheme 2). Already earlier (Ref 3) the authors used the furanidones (VI) for the synthesis of nitrogenous heterocyclic systems with the furanidine ring. By this method the compounds (VII) and (VIII) were obtained from 4-oxy-2,2,5,5-tetramethyl- and 4-oxy-2,2,5,5-bispentamethylene furanidone-3 (Scheme 3) which are weak acids. The furanidones (VI) react with ammonium thiocyanate in melting (150°) to form furanidine thiazoles (IX), (X), (XI) (Scheme 4). A scheme of the formation of these compounds is suggested. There are 8 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: July 2, 1958

Card 2/2

5 (3)

## AUTHORS:

Korobitsyna, I. K., Zhukova, I. G.,  
Yur'yev, Yu. K.

SOV/79-29-7-21/83

## TITLE:

4-Acetyl-2,2,5,5-tetraalkyl furanidones-3 (4-Acetil-2,2,5,5-  
-tetra-alkilfuranidony-3)

## PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2196-2201 (USSR)

## ABSTRACT:

Earlier (Ref 1) the authors showed that 4-acetyl-2,2,5,5-tetramethyl furanidone-3 forms in the thermal isomerization of the enol acetate of 2,2,5,5-tetramethyl furanidone-3. In the present paper they tried to apply this method also to the synthesis of the higher homologs of 4-acetyl-2,2,5,5-tetraalkyl furanidones-3. It was found that in passing the enol acetate of 2,5-dimethyl-2,5-diethyl furanidone-3 through a quartz tube filled with glass wool and which had been heated to 500° this enol acetate isomerizes into 4-acetyl-2,5-dimethyl-2,5-diethyl furanidone-3 (15,6% yield)(Scheme 1). Further investigations showed that with increasing radicals in the positions 2 and 5 the yields of the products of thermal isomerization in the enol acetates of 2,2,5,5-tetraalkyl furanidones-3 (of the corresponding 4-acetyl-2,2,5,5-tetraalkyl furanidones-3)

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4-Acetyl-2,2,5,5-tetraalkyl furanidones-3

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are abruptly reduced. This method, however, is still the only one possible for the synthesis of 4-acetyl-2,2,5,5-tetramethyl furanidone-3 and of 4-acetyl-2,5-dimethyl-2,5-diethyl furanidone-3 since other experiments failed. The two oxy-ketones (III) and (IV) may occur as tautomeric forms of 4-acetyl-2,2,5,5-tetramethyl furanidone-3 (II). 4-acetyl-2,2,5,5-tetramethyl furanidone-3 is enolized in a high degree in the direction of the exocyclic carbonyl group; it forms C- and O- derivatives according to the conditions of acylation. The  $\beta$ -diketones of the 2,2,5,5 tetraalkyl furanidine series require much more rigid conditions in the reactions leading to the condensated heterocyclic systems than the aliphatic or aromatic  $\beta$ -diketones. There are 8 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: July 2, 1958

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17(2,3)  
AUTHORS:

SOV/20-126-1-54/62  
Gel'man, N. S., Zhukova, I. G., Oparin, A. I., Academician

TITLE:

The Effect of Desoxyribonuclease on the Oxidation of Malonic Acid by the Lysates of Micrococcus Lyodeikticus (Vliyaniye dezoksiribonukleazy na okisleniya yablochnoy kisloty lizatami bakteriy Micrococcus lyodeikticus)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 198-199 (USSR)

ABSTRACT:

Malic oxidase - a fermentative system which oxidizes malonic acid, is of considerable resistance as far as the disturbance of the protoplasmic structure is concerned. This system is localized in the cytoplasmic membranes - the "shadows". Such shadows can be obtained by treating the protoplasts, the bacteria mentioned in the title, with water, as well as by a direct lysis of the same bacteria in an osmotically unstabilized medium (Refs 1,2). The effect of the malonic oxidase is completely stopped due to the splitting of the highly molecular desoxyribonucleic acid (DNA) present in the lysate - by means of desoxyribonuclease (DNA-ase) - into cytoplasmic membranes which the lysate did not separate. This is expressed by

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The Effect of Desoxyribonuclease on the Oxidation of Malonic Acid by the Lysates of *Micrococcus Lyodeikticus*

the fact that the oxygen absorption is stopped by the lysate at the expense of the malonic acid (Ref 1). The present work tries to explain a relation between the development of the DNA in the lysate containing cytoplasmic membranes, and the activity of the system of oxidative-reductive ferments. For the purpose of explaining the cause for the suppression of the activity of malic oxidase in lysates treated with DNA-ase and RNA-ase, the authors quantitatively defined this activity from the oxygen absorption. The preparations were observed simultaneously under the electron microscope (Fig 1). The lysis of the bacteria with lysozym DNA-ase and RNA-ase was made with both Mg-ions being either present or absent (Fig 1). As the results show, lysozym in an osmotically unstabilized medium causes the development of lysates containing cytoplasmic membranes. The active malic oxidase is maintained in these membranes. Their effect can be found by O<sub>2</sub>-absorption.

Lysis caused by lysozym together with DNA-ase completely suppresses the fermentative system mentioned. Magnesium ions

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The Effect of Desoxyribonuclease on the Oxidation of Malonic Acid by the  
Lysates of *Micrococcus Lyodeikticus* SOV/20-126-1-54/62

stabilize not only the structure of the cytoplasmic membranes, but also the malic oxidase. The experiments proved that the DNA splitting of the bacterial lysate neutralizes the effect of the malic oxidase. Since this effect is maintained even in the presence of Mg-ions, although the Mg-ions do not prevent the fermentative splitting of DNA, it is most probable that DNA creates a spatial organization of the fermentative system of the malic oxidase on a supra-molecular level. An analogy to reference 8 may be seen. There are 1 figure, 1 table, and 8 references, 3 of which are Soviet.

SUBMITTED:

February 16, 1959

Card 3/3

ZHUKOVA, I. G., LUKOYANOVA, M. A., GIL'MAN, N. S.

"Oxidative-Reducing Enzymes of the Cytoplasmic Membrana of *Miscrococcus lysodeikticus*."

report submitted for the First Conference on the problems of Cyto and Histochemistry, Moscow, 19-21 Dec 1960.

Institute of Biochemistry Imeni A. N. Bakh, Academy of Sciences USSR, Moscow.

GEL'MAN, N.S.; ZHUKOVA, I.G.; OPARIN, A.I., akademik

Oxidation of L-malic acid and reduced diphosphopyridinenucleotide  
in the cytoplasmic membrane of *Micrococcus lysodeikticus*. Dokl.  
AN SSSR 133 no.5:1209-1212 Ag 60. (MIRA 13:8)

1. Institut biokhimi im. A.N.Bakha Akademii nauk SSSR.  
(Malic acid)  
(Nucleotides)  
(Micrococcus)  
(Oxidation, Physiological)

GEL'MAN, N.S.; ZHUKOVA, I.G.; OPARIN, A.I., akademik

Effect of desoxycholate on the oxidation of reduced diphosphopyridine nucleotide, L-malic and L-lactic acids in the cytoplasmic membrane of *Micrococcus lysodeikticus*. Dokl. AN SSSR. 135 no.1:200-203 N '60.

(MIRA 13:11)

(MICROCOCCUS) (OXIDATION, PHYSIOLOGICAL) (BACTERIOLYSIS)

L 33108-66

ACC NR: AP6024118

SOURCE CODE: UR/0020/66/167/002/0346/0349

AUTHOR: Zhukova, I. G.; Glukhoded, I. S.; Kochetkov, N. K. (Corresponding member AN SSSR)

31  
B

ORG: none

TITLE: 3-O-acylcerebrosides---new sphingolipids of the brain tissue

22

SOURCE: AN SSSR. Doklady, v. 167, no. 2, 1966, 346-349

TOPIC TAGS: brain tissue, chromatographic analysis, biologic metabolism, biochemistry, neurophysiology

ABSTRACT: The occurrence in the cerebroside fraction of mono-O-acylcerebrosides which appear to be a new type of natural sphingolipids is reported. The purpose of the research was to study the glycolipid fractions which are less polar than cerebrosides. The systematic study of the cerebroside fraction of the brain with its chromatographic separation on a silicagel column and control of the resulting fractions with thin-layer chromatography indicated that there is 1-2% glycosphingosides, which are considerably less polar than the cerebrosides, present in the cerebroside fraction of the brain of cattle. They are related to a new type of sphingolipids in which the secondary hydroxy group of the sphingosine base is substituted by a higher fatty radical. The newly obtained sphingolipids have the structure of 3-O-acylceramidgalactosides. The structure

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UDG: 547,952

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1692

L-33108-66

ACC NR: AP6024118

of the new sphingolipids was confirmed by the partial synthesis of O-  
acylcerebrosides. The study of 3-acylcerebrosides as well as of other 3-O-  
substituted derivatives of cerebrosides is of interest especially in connection  
with the study of the metabolism of lipids in nervous tissue in the normal state  
and in pathological states. The data indicate that the class of sphingolipids  
is much broader than has been supposed up to the present. Orig. art. has: 2  
figures and 1 formula. [JPRS]

SUB CODE: 06 / SUBM DATE: 25Sep65 / ORIG REF: 005 / CTH REF: 015

Card 2/2 20

KOCHETKOV, N.K.; ZHUKOVA, I.G.; GLUKHODED, I.S.

New type of sphingolipid: sphingoplasmalogens. Biokhimiia 29 no.3;  
570-575 My-Je '64. (MIRA 18:4)

1. Laboratoriya khimii uglevodov i nukleotidov Instituta khimii  
prirodnykh soedineniy AN SSSR, Moskva.

DEBORIN, G.A.; BARANOVA, V.Z.; ZHUKOVA, I.G.

Study of phospholipide surface films of *Micrococcus lysodeicticus*  
membranes at the water-air interface. Dokl. AN SSSR 159 no.5:  
1161-1164, D '64 (MIRA 18:1)

1. Institut biokhimi im. A.N. Bakha AN SSSR. Predstavleno aka-  
demikom A.I. Oparinyam.

OPARIN, A.I., akademik; GEL'MAN, N.S.; ZHUKOVA, I.G.

Effect of lipase and phospholipase A on the dehydrogenase activity  
in an enzymatic preparation from *Micrococcus lysodeicticus* membra-  
nes. Dokl. AN SSSR 161 no.1:237-240 Mr '65.

(MIRA 18:3)

1. Institut biokhimi im. A.N. Bakha AN SSSR.

GEL'MAN, N.S.; ZHUKOVA, I.G.; OPARIN, A.I.

Preparation of dehydrogenases of l-malic acid and the reduced form of diphosphopyridine nucleotide from cytoplasmic membranes of *Micrococcus lysodeikticus*. *Biokhimiia* 28 no.1:122-127 Ja-F '63.  
(MIRA 16:4)

1. Institute of Biochemistry, Academy of Sciences of the U.S.S.R., Moscow.

(CODEHYDROGENASE) (MICROCOCCUS) (MALIC DEHYDROGENASE)

OPARIN, A.I., ~~akademik~~; GEL'MAN, N.S.; ZHUKOVA, I.G.; SHVETS, V.I.;  
CHERGADZE, Yu.N.; TSFASMAN, I.M.

Lipids of the dehydrogenase preparation from the cytoplasmic membranes  
of *Micrococcus lysodeicticus*. Dokl. AN SSSR 152 no.1:228-230  
S '63. (MIRA 16:9)

1. Institut biokhimii im. A.N.Bakha AN SSSR; Institut tonkoy  
khimicheskoy tekhnologii im. M.V.Lomonosova i Institut biologi-  
cheskoy fiziki AN SSSR.  
(LIPIDS) (DEHYDROGENASES) (BACTERIA, PATHOGENIC)

KOCHETKOV, N.K.; ZHUKOVA, I.G.; GLUKHOED, I.S.

Thin-layer chromatography of sphingosine derivatives. Dokl.  
AN SSSR 147 no.2:376-379 N '62. (MIRA 15:11)

1. Institut khimii prirodnykh soyedineniy AN SSSR.
2. Chlen-korrespondent AN SSSR (for Kochetkov).  
(Sphingosine)  
(Chromatographic analysis)

GEL'MAN, N.S.; ZHUKOVA, I.G.; ZAYTSEVA, N.I.

Flavine nucleotides in the cytoplasmic membrane in *Micrococcus lysodeikticus*. Dokl. AN SSSR 145 no.1:206-208 JI '62.

1. Institut biokhimi imeni A.N.Bakha AN SSSR. Predstavleno (MIRA 15:7)  
akademikom A.I. Operinym.  
(RIBOFLAVINE PHOSPHATES) (MICROCOCCUS)

ARESHKINA, L.Ya.; KUTSEVA, L.S.; SKOROBOGATOVA, Ye.P.; ZHUKOVA, I.G.

Participation of vitamin B<sub>12</sub> in the protein metabolism of Escherichia coli. Vit. res. i ikh. isp. no.5:19-31 '61. (MIRA 15:1)

1. Institut biokhimi im. A.N.Bakha AN SSSR, Moskva.  
(CYANOCOBALAMINE) (PROTEIN METABOLISM)

ZHUKOVA, I.G., CELMAN, N.S., LUKOYANOVA, M.A. (USSR)

"Oxidases of the Cytoplasmic Membrane of *Micrococcus lysodeikticus*."

Report presented at the 5th Int'l. Biochemistry Congress,  
Moscow, 10-16 Aug 1961.

KCCHETKOV, N.K.; ZHUKOVA, I.G.; GLUKHOED, I.S.

Thin-layer chromatography of cerebrosides. Dokl. AN SSSR 139  
no.3:608-611 J1 '61. (MIRA 14:7)

1. Institut khimii prirodnykh soedineniy AN SSSR. 2. Chlen-  
korrespondent AN SSSR (for Kochetkov).  
(Cerebrosides) (Chromatographic analysis)

KUCHEROVA, N.F.; ZHUKOVA, I.G.; KAMZOLOVA, N.N.; PETRUCHENKO, M.I.;  
SHARKOVA, N.M.; KOCHETKOV, N.K.

Indole derivatives. Part 8:9-Acyl-1,2,3,4,4a,9a-hexahydro-8-  
carbolines. Zhur.ob.khim. 31 no.3:930-936 Mr. '67, (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut farmakologii i khimioterapii.  
(Pyridindole)

ZHUKOVA, I. G., LUKYANOVA, M. A., GELMAN, N. S. (USSR).

Oxidases of the Cytoplasmic Membrane of *Micrococcus lysodeikticus* (read by title).

report presented at the 5th Int'l.

Biochemistry Congress, Moscow, 10-16 Aug. 1961

L 9915-66 EWT(1)/EWP(e)/EWT(m)/EWP(j)/EWP(h) LHB/SR/WH  
 ACC NR: AP5022867 SOURCE CODE: UR/0051/65/019/003/0425/0433

AUTHOR: Lukirskiy, A. P. (Deceased); Savinov, Ye. P.; Yerashov, O. A.; Zhukova, I. I.  
 Fomichev, V. A.

ORG: None

TITLE: Reflection of x rays with wavelengths from 23.6 to 190.3 Å. Some remarks on the operation of diffraction gratings

SOURCE: Optika i spektroskopiya, v. 19, no. 3, 1965, 425-433

TOPIC TAGS: x ray diffraction, x ray filter, x ray spectrum, diffraction grating

ABSTRACT: The authors measured the angular dependence of the reflection coefficient for various substances, using the following monochromatic lines:  $O_K$  (23.6 Å),  $N_K$  (31.4 Å),  $C_K$  (44 Å),  $B_K$  (67 Å),  $Sr_{M\beta}$  (108.65 Å),  $Rb_{M\beta}$  (128.66 Å),  $Ba_{M\gamma-OIII}$  (164.6 Å), and  $Cs_{M\gamma-OIII}$  (190.3 Å). The measurement methods were described by the authors elsewhere (Opt. i spektr. v. 16, 310, 1963 and earlier). For lines shorter than 113 Å the radiation was detected with a flow-through proportional counter filled with methane; for longer wavelengths a Geiger counter with a gas-alcohol mixture was used. The substances measured were F-1 glass, gold, titanium, and polystyrene. The method of preparing the reflectors was also described in the earlier papers. Polystyrene and titanium reflectors are found to be capable of effectively filtering radiation shorter than 50--200 Å, depending on the angle of incidence. In the case of F-1 glass, a sharp fine structure is observed in the reflection coefficient at wavelengths 70--130 Å. For titanium the fine structure appears at wavelengths shorter

Card 1/2 UDC: 537.531

L 9915-66

ACC NR: AP5022867

than 30 Å, and for polystyrene at wavelengths shorter than 45 Å. Gold exhibits no fine structure. The spectral dependences of the reflection coefficients show that titanium mirrors can be used effectively as filters for radiation of wavelengths shorter than ~~30-50~~ Å at various angles of incidence, and that polystyrene mirrors can be used as filters for radiation shorter than 50--180 Å, depending on the angle of incidence. The maximum reflection coefficients in the first order of diffraction have been calculated also for echelettes cut in F-1 glass and echelettes with gold and titanium coatings, which were also studied by the authors earlier (Opt. i spektr. v. 14, 285, 1963). Plots of the maximum reflection coefficient of the echelettes (600 and 1200 lines/mm) vs. the angle make it possible to choose the optimum angles of incidence and the angles of inclination of the echelette steps. The greatest possible reflection coefficients are obtained in first order. Orig. art. has: 3 formulas and 1 table.

SUB CODE: 20/      SUBM DATE: 21May64/      ORIG REF: 007/      OTS REF: 001

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18/

Card 2/2

L 04977-67 EWT(m)/EWP(j) LJP(c) RM  
ACC NR: AP6030598 (A,N) SOURCE CODE: UR/0413/66/000/016/0091/0091

INVENTOR: Eytinson, I. I.; Tarasova, Z. N.; Vinogradova, T. H.;  
Senatorskaya, L. G.; Zhukova, I. I. 22  
B

ORG: none

TITLE: Stabilization of rubbers. Class 39, No. 185050

SOURCE: Izobrateniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16,  
1966, 91

TOPIC TAGS: rubber stabilization, paraphenylenediamine derivative,  
*rubber, chemical stabilization*

ABSTRACT: An Author Certificate has been issued for a method of  
stabilizing rubbers by the addition of bis-(1-anilinomethyl-3-amino-  
methyl-2-naphthol)-N,N'-p-phenylenediamine [sic] to rubber mixtures.

[B0]

SUB CODE: 11/ SUBM DATE: 17May65/

Card 1/1 *PLH*

UDC: 678.4.048.25

ACCESSION NR: AT4042325

S/0000/64/000/000/0005/0017

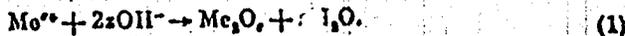
AUTHOR: Zhukova, I. S., Ody\*nets, L. L.

TITLE: Electrochemical oxidation of ionic-valve metals

SOURCE: AN SSSR. Karel'skiy filial. Fizika poluprovodnikov i metallov (Physics of semiconductors and metals). Moscow, Izd-vo Nauka, 1964, 5-17

TOPIC TAGS: ionic valve metal, metal oxide conductivity, metal conductivity, electrochemical oxidation, oxide film

ABSTRACT: The author discusses the still not fully clarified mechanism of the formation of oxide films during electrochemical oxidation of the so-called ionic-valve metals (aluminum, tantalum, niobium, zirconium and some others). The potential barrier at the metal — oxide boundary, the electrical field in the oxide layer, the effect of the three-dimensional charge of cation vacancies, and the processes at the oxide — electrolyte boundary involved in the anodic oxidation of ionic-valve metals are the major points of the discussion. Reactions occurring at the surface of the oxide layer, which control the ion supply by the general equation



Card 1/2

ACCESSION NR: AT4042325

are discussed at length. The part played by the electrical field and the nature of the particles that pass by diffusion through the oxide layer in the process of its growth, as well as the processes at the metal - oxide and oxide - electrolyte boundaries, are still not clarified for lack of experimental data. Orig. art. has: 4 figures and 25 formulas.

ASSOCIATION: Karel'skiy filial AN SSSR (Karelian Branch, AN SSSR)

SUBMITTED: 08Jan64

ENCL: 00

SUB CODE: SS, MM

NO REF SOV: 010

OTHER: 028

2/2.  
Card

ACCESSION NR: AT4042326

8/0000/64/000/000/0018/0040

AUTHOR: Zhukova, I. S., Ody\*nets, L. L.

TITLE: Electrical properties of oxide films on ionic valve metals and the mechanism of electrolytic rectification

SOURCE: AN SSSR. Karel'skiy filial. Fizika poluprovodnikov i metallov (physics of semiconductors and metals). Moscow, Izd-vo Nauka, 1964, 18-40

TOPIC TAGS: electrolytic rectification, rectifier, ionic valve, oxide film, metal conductivity, metal oxide conductivity, dielectric

ABSTRACT: In a review of published work on the unidirectional conductivity of metal — oxide films — electrolyte systems (for aluminum, tantalum, niobium and zirconium), the theories which have been proposed during the last forty years are divided into two groups: those of local rectification, which regard the oxide film as a dielectric permitting the passage of an ion current only during the process of oxide formation, and those which assert that a current can pass through a whole oxide layer regardless of defects. The static volt-ampere characteristics of the metal — oxide layer — electrolyte system and the dynamic volt-ampere characteristics of the electrolytic rectifier are the principal

Card 1/2

ZHUKOVA, I. S.

"The Spectrum of Electromotive Force of Transverse Induction,"

Dok. AN, 65, No. 2, 1949.

Physics-Tech. Insti. at Gor'k'y State Uni., -c1949-.

ZHUKOVA, I. V.

"Reasons for the Withering of Kok-saghyz Flower Stalks," Agrobiologia, no. 5,  
1947, pp. 113-115. 20 Ag

SO: SIRA - SI - 90-53, 15 Dec. 1953

Zhukova, I. V.

Cand Biolog Sci

Dissertation: "Nature of Withering of Kok-Saghyz Floriferous Plants."

9 May 49

Moscow State Pedagogical Inst imeni V. I. Lenin.

SO Vecheryaya Moskva  
Sum 71

ZHUKOVA, I. V.

I. V. Zhukova, "Conditions for Infestation of Winter Rye with the Fungus, *Urocystis occulta* (Vallrot) Rabenhorst," Mikrobiologiya, vol. 20, no. 2, 1951, pp. 152-154. 448.3 M582

S0: Sira Si 90-53, 15 Dec 1953

*Aleksandrov State Selection Station*

ZHUKOVA, I.V., kand.biol.nauk

Causes of whitening of the winter wheat spike in Vladimir Province. Agrobiologiya no.4:122-123 J1-Ag '58. (MIRA 11:9)

1. Vladimirskaia sel'skokhozyaystvennaya opyt'naya stantsiya.  
(Vladimir Province--Wheat--Diseases and pests)

SHARKOVSKIY, I.A., prof.; KULIKOV, I.A., kand.med.nauk; ZHUKOVA, I.V.,  
vrach; MURAV'YEVA, K.A., vrach

Detection of glaucoma among workers of the Stalingrad Tractor  
Plant and the "Krasnyi Oktiabr'" Metallurgical Plant. (Stalin-  
grad). Vest.oft. no.4:3-4 '61. (MIRA 14:11)

1. Kafedra glaznykh bolezney (zav. - prof. I.A. Sharkovskiy)  
Stalingradskego meditsinskogo instituta.  
(GLAUCOMA) (VOLGOGRAD--MACHINERY INDUSTRY--HYGIENIC ASPECTS)

ZHUKOVA, K.A.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Electronic Phenomena  
and Spectra

③ (Chem) 5  
Absorption spectra in the ultraviolet of some derivatives  
of pyridine and nicotine. III. K. A. Zhukova, M. S.  
Kondakova, and Ya. L. Gol'dfarb, *Bull. Acad. Sci.  
U.S.S.R., Div. Chem. Sci.* 1952, 073-9 (Engl. translation).  
—See C.A. 47, 401g.  
H. L. H.

Relative description of terms of nitrogen in compounds of  
the type of 1-amino-2-pyridone and 2-pyridone  
Ya. I. Gaidarb, M. A. Ponomareva, and R. I. Zakharenko  
Dokl. Akad. Nauk SSSR, 1978, 238, 1000-1001  
1978 (English translation). -- See C.A.B. 48, 23334.  
E. L. H.



ZHUKOVA, K. A.

Dissertation: "Ultraviolet Absorption Spectra of Derivatives of Pyridene."  
Cand Phys-Math Sci, Moscow State Pedagogical Inst imeni V. I. Lenin, 10 May 54.  
(Vechernyaya Moskva, Moscow, 29 Apr 54)

SO: SUM 243, 19 Oct 54

IYERUSALIMSKIY, N.D.; ANDREYEVA, Ye.A.; GRISHANKOVA, Ye.L.; GOLOVLEV, Ye.L.;  
DOROKHOV, V.V.; ZHUKOVA, L.N.

Study of microflora of refinery waste waters. Prikl. biokhim.  
i mikrobiol. 1 no.2:163-166 Mr-Apr '65.

(MIRA 18:11)

1. Institut mikrobiologii AN SSSR, Moskva.



ZHUKOVA, K. N.

PROCESSES AND PROPERTIES INEFF

The application of divalent-chromium compounds in volumetric analysis. V. S. Syrovatskii and K. N. Zhukova (Rabota Provodilas v Ural'skoi Nauch.-Issledovatel. Khim. Inst. (UNIKHIM). Zashchita Lab. 11, 373-81(1945).—In the oxidimetric analysis of systems whose oxidation-reduction potentials are not less than 0.4 v., Cr<sup>2+</sup> salts are used in excess as reducing agent, and the excess is oxidized by air. If the potential is less than 0.4 v., the reduction products may be oxidized by air. *Data. of Fe in tech. H<sub>2</sub>SO<sub>4</sub>.* Add approx. 10 g. of sample to 15 ml. of water, cool to room temp., oxidize any H<sub>2</sub>SO<sub>4</sub> and FeO which may be present by careful dropwise addn. of 0.1 N MnO<sub>2</sub> until a pink color is obtained, add 3-4 ml. of blue Cr<sup>2+</sup> soln. shake for 5-7 min., add 2 drops of 0.02% phenylanthranilic acid and titrate with 0.002 N VO<sub>5</sub> soln. until the red-violet color persists. The analysis requires no more than 15 min. The results are satisfactory. *Data. of Fe in tech. NaOH and NH<sub>4</sub>Cl.* Dissolve 40 g. of sample in water, transfer to a 250-ml. measuring flask, add water to the mark, and mix carefully. Neutralize an aliquot portion (4 g.) with 18 N H<sub>2</sub>SO<sub>4</sub> to methyl red, oxidize the Fe by heating with 2-3 drops of HNO<sub>3</sub>, ppt. Al(OH)<sub>3</sub> and Fe(OH)<sub>3</sub> by adding excess NH<sub>4</sub>OH, filter through a small filter (5-7 cm.), wash 2-3 times with hot water, dissolve on the filter in hot, 0.1 N

H<sub>2</sub>SO<sub>4</sub>, using no more than 10-15 ml. of acid, reduce the soln. with 1 ml. of freshly prepd. Cr<sup>2+</sup> soln., and complete the detn. as described above. Make a blank test with the same reagents to correct for Fe present in the reagents. In NH<sub>4</sub>Cl the Fe content is detd. by the same method, except the neutralization with H<sub>2</sub>SO<sub>4</sub>. *Data. of Mo.* Add 3-5 ml. of H<sub>2</sub>SO<sub>4</sub> (1:2) to 0.0-2 ml. of 0.001 N (Ag)<sub>2</sub>MoO<sub>4</sub>, reduce the Mo with a freshly prepd. Cr<sup>2+</sup> soln., and titrate the reduced Mo with VO<sub>5</sub> soln. in the presence of phenylanthranilic acid. Sixteen references.

AS N. S. A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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ZHUKOVA, K. P.

ZHUKOVA, K. P. and TVERSKOY, D. I. "Comparative Aggressiveness of the Organisms  
Causing Root Rot in Sugar Beets," Sakharnaya Promyshlennost',  
vol. 22, no. 3, 1948, pp. 40-44. 65.8 Sa2

SO: SIRA SI - 90-53, 15 December 1953

ZHUKOVA, K. P.

TVERSKOY, D. L., ZHUKOVA, K. P., and NAVSUTS, B. S. "In Regard to Causes for the Damping-off of Red Clover Seedlings in the Moscow Region," in Grass Sowing and Seed Production of Perennial Grasses, State Publishers of Agricultural Literature, Moscow, 1950, pp. 634-636. 60.19 Un32

SO: SIRA, SI 90-53, 15 December 1953

ZHUKOVA, K. P.

USSR/Biology-Clover Plant Disease

May 50

"Reasons for Destruction of Clover Seedlings in Moscow Oblast and Measures for Controlling It," D. L. Tverskoy, Cand Agr Sci, K. P. Zhukova, and B. S. Navsuts, Moscow Sta for Plant Protection, 8 pp

"Dok v-s Ak Selkhoz Nauk" No 5

Conducts series of experiments to determine plant disease statistics and soil conditions in which disease and destruction of clover seedlings are most pronounced. Finds weakly acid soils to be most harmful condition. Recommends control measures involving application of various fertilizers. Includes six tables of data.

PA 159T2

1 of 174

ТУВЕРСКОИ (D. L.), ЗИУКОВА (Mma K. P.), & НАВСУТЪ (B. S.). Причины выпадения сеянцев клевера в Московской области и меры борьбы с ними. [Causes of Clover seedling failures in the Moscow district and control measures.] —*C. R. Acad. Sci. agric. U.R.S.S.*, 1950, 5, pp. 22-29, 1950.

In 1947 clover failure in the Moscow district amounted to more than 80 per cent. In 1949 in the drier southern areas of the district 18 per cent. of the seedlings were diseased, and 85 per cent. in the more humid northern parts. At the Sekhanovo State farm 27 per cent. of the diseased seedlings died and 45 per cent. at the Moscow Experimental Station, Ermolino, the losses being greatest during a hot, dry period in June and July.

In investigations carried out in 1949 at the Moscow Experimental Station a species of *Fusarium* (cf. *R.A.M.*, 25, p. 13; 26, p. 110) was most frequently isolated from diseased red clover seedlings, followed by species of *Rhizoctonia* (ibid., 19, p. 322) and *Pythium*. *Thielaviopsis* sp. (ibid., 27, p. 123) was less common. Many seedlings had infected root systems (11 to 45 per cent.); isolations yielded *Fusarium* in 32.6 per cent. of the cases and an [unspecified] bacterium in 53.8

CH

15

The influence of acidity and moisture content of soil on the infection of sugar-beet seedlings by *Pythium de Baryanum* H. and *Phoma betae* Fr. N. P. Zhukova. *Doklady Vsesoyuz. Otdena Lenina (Ibid. VESTNIK. NII im. V. I. Lenina* 16, No. 5, 34-8(1951).--The acidity of Pythium increases with the increase in pH and moisture content of soil. *Phoma betae* is not affected by the pH of the soil and becomes more active with the decrease in soil moisture content. I. S. Joffe

ZHUKOVA, K. P.

TVERSKOY, D. L., and ZHUKOVA, K. P. "Effect of Fertilizers on Diseases (Damping-off) of Clover Sprouts," Doklady Vsesoiuznoi Akademii Sel'skoldhoziaistvennykh Nauk imeni V. I. Lenina, vol. 16, no. 7, 1951, pp. 32-35. 20 kki

SO: SIRA, SI 90-53, 15 December 1953

ZHUKOVA, K. P.

ZHUKOVA, K. P. -- "Damping Off of Sugar-Beet Seedlings in Moskovskaya Oblast and Measures for Combating It." Sub 18 Feb 52, Moscow State Pedagogical Inst imeni V. I. Lenin. (Dissertation for the Degree of Candidate in Biological Sciences).

SO: Vechernaya Moskva January-December 1952

IVERSKOY, D. L.: ZHUKOVA, K. P.

Moscow Province - Clover

Dying out of red clover and measures for combatting this phenomenon in Moscow Province.  
Sov. agron. 10, no. 10, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

USSR / Plant Diseases. Cultivated Plants. O

Abs Jour: Ref Zhur-Biol., No 13, 1958, 58864.

Author : Zhukova, K. P.

Inst : Not given.

Title : A Disease of the Grains of the Indian Corn, the  
"Blue Eye."

Orig Pub: Zashchita Rast. ot vredit. i bolezney, 1957, No 3, 28.

Abstract: The infection of the corncob does not exhibit external symptoms. On the grains, the disease is manifested in the region of the embryo in the form of spots, which resemble eyes of a bluish or greenish color. A part of the cob may have a latent form of infection. The lower the germination of these grains, the greater is their infection. The disease, apparently, has a wide distribution, and is not caused by a specific parasite. -- G. A. D'yakova.

Card 1/1

9

TVERSKOY, D.L., doktor biol.nauk; ZHUKOVA, K.P., kand.biol.nauk

Corn diseases and measures for their control. Biol. v shkole  
no.4:78-83 J1-Ag '58. (MIRA 11:9)

1. Moskovskaya stantsiya zashchity rasteniy Vsesoyuznogo instituta  
zashchity rasteniy.  
(Corn (Maize)--Diseases and pests)

ZHUKOVA, K.P.; KAPKOVA, Ye.A.; KASIKHIN, A.N.; KOZLOVA, V.I.;  
MILOVIDOVA, N.D., red.; STREL'TSOVA, N.P., red.

[Corn pests and diseases] Vrediteli i bolezni kukuruzy.  
2. izd. Moskva, Sel'khozizdat, 1963. 34 p. (MIRA 17:4)

ZHUKOVA, K. V.

124-57-1-570

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 72 (USSR)

AUTHORS: Pervunina, T.P., Zhukova, K.V., Lundberg, O.R.

TITLE: Practical Hints on the Harmonic Analysis of Daily Tidal-flow Observations (Iz opyta garmonicheskogo analiza autochnykh nablyudeniy nad techeniyami)

PERIODICAL: Tr. Gos. okeanogr. in-ta, 1955, Nr 30, pp 226-241

ABSTRACT: The authors propose a number of qualitative concepts regarding the processing of observational data on tidal currents. In addition thereto, the paper adduces appraisals of the astronomical circumstances at observation time, also examples and the harmonic analysis of the diurnal and semidiurnal tidal currents and methods for the selection of the harmonic constants.

A.S. Sarkisyan

1. Oceanography 2. Astronomy 3. Tides--Tables 4. Tides--Analysis

Card 1/1

GOLOVANOVA, E., kand. biolog. nauk; YEGOROVA, I., nauchnyy sotrudnik;  
KHALILOV, B., kand. biolog. nauk; ZAMEDOV, I., midschkiy nauchnyy  
sotrudnik; VEDEBNIKOV, N., starshiy nauchnyy sotrudnik; SAYKO, N.;  
GVRITSEVICH, V.K., aspirant; DUTSOF, G., aspirant; ZHUKOVA, I.,  
fitopatolog

From practices in the use of poisonous chemicals. Zashch. rast ot  
vrad. i bal. 10 no.18:21-24 '65. (MIRA 18:3)

1. Vsesoyuznyy institut zashchity rasteniy (for Golovanova, Yegorova).
2. Azerbaydzhanskiy institut zashchity rasteniy, Kirovabad (for Khalilov, Zamedov).
3. Tatarskaya nauchnaya opyt'naya stantsiya, Kazan' (for Vedernikov).
4. Zavoduyushchiy otdelom zashchity rasteniy Ternopol'skiy opyt'nyy stantsii (for Sayko).
5. Gruzinskiy institut zashchity rasteniy (for Gvritsevich).
6. Tadzhikskiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva (for Dutsuf).
7. Donetskaya sel'skokhozyaystvennaya opyt'naya stantsiya (for Zhukova).

DRUGALEVA, Z.; ZHUKOVA, L.; FEDOTOV, M.

Specialization of machinery manufacturing in an economic region.  
Vop. ekon. no. 4:59-68 Ap '58. (MIRA 11:5)

1. Ural'skiy filial AN SSSR (for Drugaleva, Zhukova). 2. Chelyabinskiy  
sovmarkhos (for Fedotov).  
(Chelyabinsk Province--Machinery industry)

ZHUKOVA, L.A.; KOLOKOLOVA, N.A.; SUKHNEV, V.A.

Investigating new liquids for liquid-column manometers used  
in measuring pressure drops in rarefied gases. Izv. tekhn.  
no.5:17-19 My '65.  
(MIRA 18:8)

L 29331-66 EWP(m)/EWT(d)/EWT(l)/EWT(m)/1-2/EWP(f) WVV/JH

ACC NR: AP6017839

SOURCE CODE: UR/0147/66/000/002/0137/0142

AUTHOR: Zhukova, L. A.; Makarov, I. S.; Khudenko, B. G.

ORG: none

TITLE: <sup>2</sup>Mixing of gas jets at the wall

SOURCE: IVUZ. Aviatzionnaya tekhnika, no. 2, 1966, 137-142

TOPIC TAGS: rocket engine, gas dynamics jet, jet mixing

ABSTRACT: The mixing of gas jets is of great importance in the operation of reaction engines. This problem has been studied experimentally and a method was proposed for the approximate calculation of the velocity fields of the resulting gas jet. The test assembly consisted of a square duct with three uniformly spaced nozzles located in a plane parallel to the wall and one nozzle located at a greater distance from the wall but symmetrically with respect to the three nozzles. The total pressures of the jets near the wall and the velocities were measured as a function of distance from the nozzle outlets. The experiments were conducted at discharge velocities of 30, 50, and 80 m/sec, which were equal for all four nozzles. An interesting result was that the axial velocities of the jets changed with distance at different rates, although the discharge velocities, flow rate, nozzle size, and total momentum

Card 1/2

UDC: 533.17

L 29331-66

ACC NR: AP6017839

were equal for all four jets. Formulas for the axial and radial velocity profiles and for the velocity of the resulting flow were developed. Orig. art. has: 3 formulas and 7 figures. [PV]

SUB CODE: 21/ SUBM DATE: 19Apr65/ ORIG REF: 003/ OTH REF: 002/ ATD PRESS:

5010

Card 2/2 CC

L 12470-55... EMT(d)/EMT(1)/MCP(m)/MPC(m)/EMT(c)/MPC/1-2/EMT(c)/EMT(1) ...  
ACCESSION NR: AP4048510 ASD(p)-3/AEDC(m) WAF S/0107/60/000/004/0007/0076

AUTHOR: Zhukova, L. A.; Makarov, I. S.; Chudenko, B. G.

TITLE: Mixing of plane-parallel turbulent jets

SOURCE: IVUZ. Aviatzionnaya tekhnika, no. 4, 1964, 67-76

TOPIC TAGS: jet mixing, plane parallel jet, turbulent jet, air jet, carbon dioxide admixture

ABSTRACT: Experimental results are presented on the mixing of two plane-parallel turbulent air jets discharging into the atmosphere from square nozzles, 10 x 40 mm in size, at velocities ranging from 20 to 56 m/sec. The distance between the nozzles varied from 0 to 120 mm. The resulting concentration fields of an admixture of carbon dioxide in the region of the two jets was investigated. The jets were discharged at velocities of 10 and 20 m/sec. In some cases, to change the jets, they were discharged into a space enclosed between two plates. The measurements were taken at a distance of 400 mm from the nozzle. The initial data obtained in the experimental data were treated mathematically. The results of the calculations are presented in the form of graphs and tables. The temperature and density fields are also presented.

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L 12470-65

ACCESSION NR: AP4048510

rarefaction coefficient profiles for the resulting (mixed) flow. It is shown that the velocity distribution in the boundary layer during the mixing of the two jets has a universal character, with respect to both the mixing of two jets and the flow of a single jet. During the mixing of the two jets, the air motion has a potential character and occurs without the loss of total pressure. The present study is concerned with the atmospheric pressure aspect of the flow. The experimental data show that the equations for calculating the boundaries of a submerged turbulent jet are applicable to the flow of air. The equations for calculating the change in velocity of a jet are also applicable to the flow of air.

ASSOCIATION: none

Curd 2/3

L 12470-65  
ACCESSION NR: AP4048510

SUBMITTED: 04May64

HWCL: 00

SUP CODE: HE

NO REF SOV: 002

OTHER: 000

ATD PRESS: 3127

Card 3/3

L 62139-65 ENT(x)/ENP(y)/T Pc-4 RM  
ACCESSION NR: AP5016947

UPL/0303/05/000 /003/0032/0033  
667.633.243.1

16  
13

AUTHOR: Sorokin, M.F.; Kochnova, Z.A.; Zhukova, L.E.

TITLE: One-component polyurethane varnishes based on nitrogen-containing tetra-

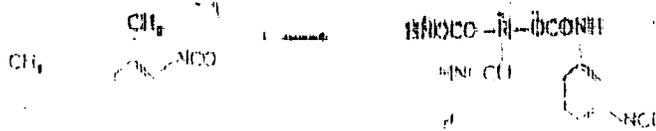
SOURCE: Lakokrasivnaia materialy i ikh primeneniye no 3 1981 33-35

ABSTRACT: Single-component polyurethane varnishes based on nitrogen-containing tetra-

ABSTRACT: In order to obtain one-component polyurethane varnishes based on tetrafunctional

L 62139-65

ACCESSION NO: AP6016947



between butyl glycidol ether and 4,4'-toluene diisocyanate for the synthesis of polyurethanes were also studied. Finally, it was shown that urethane films based on these prepolymers have a high chemical stability and good physico-mechanical properties. Orig. art. has 3 figures, 2 formulas and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCLOSURE: 00

SUB CODE: MT, 00

NO REF. GOV: 003

ORIGINAL: 000

Card 2/2

ACC NR: AP7006210

(A)

SOURCE CODE: UR/0363/67/003/001/0175/0176

AUTHOR: Aigina, N. R.; Gurevich, M. A.; Demonkov, N. M.; Zhukova, L. A.; Maslov, V. N.; Sakharov, B. A.

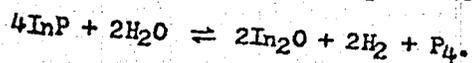
ORG: Giredmet

TITLE: Electron diffraction study of epitaxial indium phosphide layers

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 3, no. 1, 1967, 175-176

TOPIC TAGS: indium compound, phosphide, epitaxial growing, electron diffraction analysis

ABSTRACT: Epitaxial layers of indium phosphide were grown by using the sandwich method (small gaps between the source and substrate). The chemical transport was accomplished in a stream of hydrogen, water vapor acting as the carrier reagent:



Electron diffraction patterns were obtained from InP films 10 to 120  $\mu$  thick grown on GaAs at 680, 780 and 830°. An essential factor affecting the perfection of the crystal structure of the InP layers was found to be a close maintenance of the orientation of the {111} B substrate surface. It is shown that, strictly speaking, the growth of the InP layers was nonepitaxial. This is because during the first stages

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UDC: 546.682\*181.1+539.27

ACC NR: AP7006210

of deposition the layer grew epitaxially (i. e., reproduced the crystallographic orientation of the substrate completely), but later gradually changed its orientation, coming closer to the [111] direction of growth. A pronounced twinning indirectly confirms this conclusion. The measurements were made at the Institute of Semiconductors, AN SSSR (Institut poluprovodnikov AN SSSR), under the supervision of V. K. Subashiyev.

SUB CODE: 07,20/ SUBM DATE: 24Jan66/ ORIG REF: 004/ OTH REF: 005

Card 2/2

NOSOV, S.D., prof.; LADODO, K.S., kand.med.nauk; KUZ'MINSKAYA, G.Ya.;  
NIKOLAYEVSKIY, G.P.; ITSELIS, F.G.; VINTOVSKINA, I.S.;  
KAGANOVICH, N.I., ZHUKOVA, L.D.; MIL'NER, B.I.; OSHEROVICH, A.M.  
PILATSKAYA, Ye.P.

Clinical epidemiological characteristics of certain viral infections  
in children's institutions. *Pediatrics* 39 no.4:6-13 Ap '61.  
(MIRA 14:4)

1. Iz otdela detskikh infektsii (zav. - prof. S.D. Nosov)  
Instituta pediatrii AMN SSSR i epidemiologicheskogo otdela (zav. -  
S.A. Samvelova) Moskovskoy gorodskoy sanitarno-epidemiologicheskoy  
stantsii.

(VIRUS DISEASES)

ANTIMONOV, H.S., prof.; VEDENIN, N.N., kand. yurid. nauk; GENKIN,  
D.M., prof.; GRAVE, K.A., prof.; YEPANESHNIKOV, N.V.,  
dots.; ZHUKOVA, L.F., dots.; KUNIK, Ya.A., dots.;  
L'VOVICH, Yu.Ya.; MARGOLIN, M.Z.; MOROVSKAYA, T.A., dots.;  
POLENINA, S.V., kand. yurid. nauk; SADIKOV, I.N.; FIALKOV,  
M.A., kand. yurid. nauk; YAZEV, V.A., kand. yurid. nauk;  
YAKHNINA, N.A., kand. yurid. nauk; KIRAKOZOVA, N.Sh., red.;  
EL'KINA, E.M., tekhn. red.

[Government trade regulation] Regulirovanie gosudarstvennoi  
torgovli. Moskva, Gostorgizdat, 1963. 339 p. (MIRA 16:7)  
(Commercial law)

ZHUKOVA, L.A.; PINSKER, Z.G.

Electron diffraction study of the structure of potassium bichromate.  
Kristallografiia 9 no.1:44-49 Ja-F '64. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova i  
Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut  
redkometallicheskoy promyshlennosti.

SUKHNEV, V.A.; ZHUKOVA, L.A.; IOFFE, A.E.; KOLOKOLOVA, N.A.

Two-liquid micromanometer for measuring slight pressure losses  
in rarefied gases. Izv. tekh. no.12:17-19 D '63. (MIRA 16:12)

ACC NR: AP7004698 (A,N) SOURCE CODE: UR/0016/66/000/008/0012/0017

AUTHOR: Vishnyakov, S. V.; Myasnikov, Yu. A.; Panina, T. V.; Zhukova, L.D.

ORG: Central Disinfection Institute (Tsentral'nyy dezinfektsionnyy institut); Tula Oblast Sanitary-Epidemiological Station (Tul'skaya oblastnaya sanitarno-epidemiologicheskaya stantsiya)

TITLE: Devising a rodent control system for forest foci of renal hemorrhagic fever

SOURCE: Zh mikrobiol, epidemiol i immunobiol, no. 8, 1966, 12-17

TOPIC TAGS: ~~human ailment, renal hemorrhagic fever, poison effect, pest control, disease vector, rodent, HEMORRHAGE, DIGESTIVE SYSTEM DISEASE, DISEASE CONTROL~~

ABSTRACT: Renal hemorrhagic fever in a forest focus was successfully controlled by poisoning the rats which are vectors of the disease. Two kg/ha of grain poisoned with zinc phosphide were applied by plane along poisoned zone 30 m wide separated by nonpoisoned zones 50-100 m wide. Near settled areas, bait containers with an open end were buried in the soil and placed 10-20 m apart. Poisoned bait and traps were used within buildings, usually during the winter. The poisoned zones around villages were especially effective in preventing the

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UDC: 616.61-002.151-022.6-084.449.932.34

ACC NR: AP7004698

penetration of new rat populations when the animals migrated.  
art. has: 5 tables.

Orig.  
[LP]  
[WA-50]

SUB CODE: 06/ SUBM DATE: 7Jun65/ ORIG REF: 004

Card 2/2